

SV

PCT09

RAW SEQUENCE LISTING

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:09

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw

ENTERED

3 <110> APPLICANT: OHARA, Osamu
 4 NAGASE, Takahiro
 5 NOMURA, Nobuo
 6 HINUMA, Shuji
 7 FUJII, Ryo
 8 KITAHARA, Osamu
 9 MOGI, Shinichi
 11 <120> TITLE OF INVENTION: Novel G Protein Coupled Receptor Protein and Its DNA
 13 <130> FILE REFERENCE: 2534 USOP
 15 <140> CURRENT APPLICATION NUMBER: US 09/744,226A
 16 <141> CURRENT FILING DATE: 2001-01-22
 18 <150> PRIOR APPLICATION NUMBER: PCT/JP99/03909
 19 <151> PRIOR FILING DATE: 1998-07-22
 21 <150> PRIOR APPLICATION NUMBER: JP 10-207579
 22 <151> PRIOR FILING DATE: 1998-07-23
 24 <150> PRIOR APPLICATION NUMBER: JP 10-225060
 25 <151> PRIOR FILING DATE: 1998-08-07
 27 <150> PRIOR APPLICATION NUMBER: JP 10-284328
 28 <151> PRIOR FILING DATE: 1998-10-06
 30 <160> NUMBER OF SEQ ID NOS: 9
 32 <170> SOFTWARE: PatentIn version 3.0
 34 <210> SEQ ID NO: 1
 35 <211> LENGTH: 872
 36 <212> TYPE: PRT
 37 <213> ORGANISM: Homo sapiens
 39 <400> SEQUENCE: 1
 41 Ala Glu Gln Thr Arg Asn His Leu Asn Ala Gly Asp Ile Thr Tyr Ser
 42 1 5 10 15
 44 Val Arg Ala Met Asp Gln Leu Val Gly Leu Leu Asp Val Gln Leu Arg
 45 20 25 30
 47 Asn Leu Thr Pro Gly Gly Lys Asp Ser Ala Ala Arg Ser Leu Asn Lys
 48 35 40 45
 50 Ala Met Val Glu Thr Val Asn Asn Leu Leu Gln Pro Gln Ala Leu Asn
 51 50 55 60
 53 Ala Trp Arg Asp Leu Thr Thr Ser Asp Gln Leu Arg Ala Ala Thr Met
 54 65 70 75 80
 56 Leu Leu His Thr Val Glu Glu Ser Ala Phe Val Leu Ala Asp Asn Leu
 57 85 90 95
 59 Leu Lys Thr Asp Ile Val Arg Glu Asn Thr Asp Asn Ile Lys Leu Glu
 60 100 105 110
 62 Val Ala Arg Leu Ser Thr Glu Gly Asn Leu Glu Asp Leu Lys Phe Pro
 63 115 120 125
 65 Glu Asn Met Gly His Gly Ser Thr Ile Gln Leu Ser Ala Asn Thr Leu
 66 130 135 140
 68 Lys Gln Asn Gly Arg Asn Gly Glu Ile Arg Val Ala Phe Val Leu Tyr
 69 145 150 155 160
 71 Asn Asn Leu Gly Pro Tyr Leu Ser Thr Glu Asn Ala Ser Met Lys Leu

RAW SEQUENCE LISTING

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:09

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw

```

72          165          170          175
74 Gly Thr Glu Ala Leu Ser Thr Asn His Ser Val Ile Val Asn Ser Pro
75          180          185          190
77 Val Ile Thr Ala Ala Ile Asn Lys Glu Phe Ser Asn Lys Val Tyr Leu
78          195          200          205
80 Ala Asp Pro Val Val Phe Thr Val Lys His Ile Lys Gln Ser Glu Glu
81          210          215          220
83 Asn Phe Asn Pro Asn Cys Ser Phe Trp Ser Tyr Ser Lys Arg Thr Met
84 225          230          235          240
86 Thr Gly Tyr Trp Ser Thr Gln Gly Cys Arg Leu Leu Thr Thr Asn Lys
87          245          250          255
89 Thr His Thr Thr Cys Ser Cys Asn His Leu Thr Asn Phe Ala Val Leu
90          260          265          270
92 Met Ala His Val Glu Val Lys His Ser Asp Ala Val His Asp Leu Leu
93          275          280          285
95 Leu Asp Val Ile Thr Trp Val Gly Ile Leu Leu Ser Leu Val Cys Leu
96          290          295          300
98 Leu Ile Cys Ile Phe Thr Phe Cys Phe Phe Arg Gly Leu Gln Ser Asp
99 305          310          315          320
101 Arg Asn Thr Ile His Lys Asn Leu Cys Ile Ser Leu Phe Val Ala Glu
102          325          330          335
104 Leu Leu Phe Leu Ile Gly Ile Asn Arg Thr Asp Gln Pro Ile Ala Cys
105          340          345          350
107 Ala Val Phe Ala Ala Leu Leu His Phe Phe Phe Leu Ala Ala Phe Thr
108          355          360          365
110 Trp Met Phe Leu Glu Gly Val Gln Leu Tyr Ile Met Leu Val Glu Val
111          370          375          380
113 Phe Glu Ser Glu His Ser Arg Arg Lys Tyr Phe Tyr Leu Val Gly Tyr
114 385          390          395          400
116 Gly Met Pro Ala Leu Ile Val Ala Val Ser Ala Ala Val Asp Tyr Arg
117          405          410          415
119 Ser Tyr Gly Thr Asp Lys Val Cys Trp Leu Arg Leu Asp Thr Tyr Phe
120          420          425          430
122 Ile Trp Ser Phe Ile Gly Pro Ala Thr Leu Ile Ile Met Leu Asn Val
123          435          440          445
125 Ile Phe Leu Gly Ile Ala Leu Tyr Lys Met Phe His His Thr Ala Ile
126          450          455          460
128 Leu Lys Pro Glu Ser Gly Cys Leu Asp Asn Ile Lys Ser Trp Val Ile
129 465          470          475          480
131 Gly Ala Ile Ala Leu Leu Cys Leu Leu Gly Leu Thr Trp Ala Phe Gly
132          485          490          495
134 Leu Met Tyr Ile Asn Glu Ser Thr Val Ile Met Ala Tyr Leu Phe Thr
135          500          505          510
137 Ile Phe Asn Ser Leu Gln Gly Met Phe Ile Phe Ile Phe His Cys Val
138          515          520          525
140 Leu Gln Lys Lys Val Arg Lys Glu Tyr Gly Lys Cys Leu Arg Thr His
141          530          535          540
143 Cys Cys Ser Gly Lys Ser Thr Glu Ser Ser Ile Gly Ser Gly Lys Thr
144 545          550          555          560

```

RAW SEQUENCE LISTING

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:09

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw

```

146 Ser Gly Ser Arg Thr Pro Gly Arg Tyr Ser Thr Gly Ser Gln Ser Arg
147                               565                               570                               575
149 Ile Arg Arg Met Trp Asn Asp Thr Val Arg Lys Gln Ser Glu Ser Ser
150                               580                               585                               590
152 Phe Ile Thr Gly Asp Ile Asn Ser Ser Ala Ser Leu Asn Arg Glu Gly
153                               595                               600                               605
155 Leu Leu Asn Asn Ala Arg Asp Thr Ser Val Met Asp Thr Leu Pro Leu
156                               610                               615                               620
158 Asn Gly Asn His Gly Asn Ser Tyr Ser Ile Ala Ser Gly Glu Tyr Leu
159 625                               630                               635                               640
161 Ser Asn Cys Val Gln Ile Ile Asp Arg Gly Tyr Asn His Asn Glu Thr
162                               645                               650                               655
164 Ala Leu Glu Lys Lys Ile Leu Lys Glu Leu Thr Ser Asn Tyr Ile Pro
165                               660                               665                               670
167 Ser Tyr Leu Asn Asn His Glu Arg Ser Ser Glu Gln Asn Arg Asn Leu
168                               675                               680                               685
170 Met Asn Lys Leu Val Asn Asn Leu Gly Ser Gly Arg Glu Asp Asp Ala
171                               690                               695                               700
173 Ile Val Leu Asp Asp Ala Thr Ser Phe Asn His Glu Glu Ser Leu Gly
174 705                               710                               715                               720
176 Leu Glu Leu Ile His Glu Glu Ser Asp Ala Pro Leu Leu Pro Pro Arg
177                               725                               730                               735
179 Val Tyr Ser Thr Glu Asn His Gln Pro His His Tyr Thr Arg Arg Arg
180                               740                               745                               750
182 Ile Pro Gln Asp His Ser Glu Ser Phe Phe Pro Leu Leu Thr Asn Glu
183                               755                               760                               765
185 His Thr Glu Asp Leu Gln Ser Pro His Arg Asp Ser Leu Tyr Thr Ser
186                               770                               775                               780
188 Met Pro Thr Leu Ala Gly Val Ala Ala Thr Glu Ser Val Thr Thr Ser
189 785                               790                               795                               800
191 Thr Gln Thr Glu Pro Pro Ala Lys Cys Gly Asp Ala Glu Asp Val
192                               805                               810                               815
194 Tyr Tyr Lys Ser Met Pro Asn Leu Gly Ser Arg Asn His Val His Gln
195                               820                               825                               830
197 Leu His Thr Tyr Tyr Gln Leu Gly Arg Gly Ser Ser Asp Gly Phe Ile
198                               835                               840                               845
200 Val Pro Pro Asn Lys Asp Gly Thr Pro Pro Glu Gly Ser Ser Lys Gly
201                               850                               855                               860
203 Pro Ala His Leu Val Thr Ser Leu
204 865                               870
206 <210> SEQ ID NO: 2
207 <211> LENGTH: 2616
208 <212> TYPE: DNA
209 <213> ORGANISM: Homo sapiens
211 <400> SEQUENCE: 2
212 gctgaacaga caagaaatca cttgaatgct ggggacatca cctactctgt ccgggccatg      60
214 gaccagctgg taggcctcct agatgtacag cttcggaact tgaccccagg tggaaaagat      120
216 agtgcctgcc ggagtttgaa caaggcaatg gtcgagacag ttaacaacct ccttcagcca      180
218 caagctttga atgcatggag agacctgact acgagtgatc agctgcgtgc ggccaccatg      240

```

RAW SEQUENCE LISTING

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:09

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw

```

220 ttgcttcata ctgtggagga aagtgtttt gtgctggctg ataacctttt gaagactgac 300
222 attgtcaggg agaatacaga caatattaaa ttggaagttg caagactgag cacagaagga 360
224 aacttagaag acctaaaatt tccagaaaac atggggccatg gaagcaactat ccagctgtct 420
226 gcaaatacct taaagcaaaa tggccgaaat ggagagatca gagtggcctt tgtcctgtat 480
228 aacaacttgg gtcccttattt atccacggag aatgccagta tgaagttggg aacggaagct 540
230 ttgtccacaa atcattctgt tattgtcaat tcccctgtta ttacggcagc aataaacaaa 600
232 gagttcagta acaaggttta ttgggtgat cctgtggtat ttactgttaa acatatcaag 660
234 cagtcagagg aaaatttcaa ccctaactgt tcattttgga gctactocaa gcgtacaatg 720
236 acaggttatt ggtcaacaca aggctgtcgg ctccctgacaa caaataagac acatactaca 780
238 tgctcttgta accacctaac aaattttgca gtactgatgg cacatgtgga agttaagcac 840
240 agtgatgcgg tccatgacct ccttctggat gtgatcagct gggttggaat tttgctgtcc 900
242 cttgtttgtc tccatgattt catcttcaca ttttgctttt tccgcgggct ccagagtgc 960
244 cgtaacacca tccacaagaa cctctgcac agtctctttg tagcagagct gctcttccctg 1020
246 attgggatca accgaactga ccaaccaatt gcctgtgctg ttttcgctgc cctgttttct 1080
248 tcttcttggc tgcccttcacc tggatgttcc tggaggggggt gcagctttat atacatcatg 1140
250 ctggtggagg tttttgagag tgaacattca cgtaggaaat acttttatct ggtcggctat 1200
252 gggatgcctg cactcattgt ggtgtgtca gctgcagtag actacaggag ttatggaaca 1260
254 gataaagtat gttggctccg acctgacacc tacttcattt ggagttttat aggaccagca 1320
256 actttgataa ttatgcttaa tgtaatcttc cttgggattg ctttatataa aatgtttcat 1380
258 catactgcta tactgaaacc tgaatcaggc tgtcttgata acatcaagtc atgggttata 1440
260 ggtgcaatag ctcttctctg cctattagga ttgacctggg cctttggact catgtatatt 1500
262 aatgaaagca cagtcatcat ggcctatctc ttcaccattt tcaattctct acagggaatg 1560
264 tttatatatta ttttccattg tgtcctacag aagaaggtac gaaaagagta tgggaaatgc 1620
266 ctgccaacac attgctgtag tggcaaaagt acagagagtt ccattggttc agggaaaaca 1680
268 tctggttctc gaactcctgg acgctactcc acaggctcac agagccgaat ccgtagaatg 1740
270 tggaatgaca cggttcgaaa gcagtcagag tcttccttta ttactggaga cataaacagt 1800
272 tcagcgtcac tcaacagaga ggggcttctg aacaatgcc aaggatataag tgtcatggat 1860
274 actctaccac tgaatggtaa ccatggcaat agttacagca ttgccagcgg cgaataacctg 1920
276 agcaactgtg tgcaaatcat agaccgtggc tataaccata acgagaccgc cctagagaaa 1980
278 aagattctga aggaactcac ttccaactat atcccttctt acctgaacaa ccatgagcgc 2040
280 tccagtgaac agaacaggaa tctgatgaac aagctggtga ataaccttgg cagtgggaagg 2100
282 gaagatgatg ccattgtcct ggatgatgcc acctcgttta accacgagga gagtgtgggc 2160
284 ctggaactca ttcatgagga atctgatgct cctttgctgc cccaagagt atactccacc 2220
286 gagaaccacc agccacacca ttataccaga aggcgatcc cccaagacca cagtgaagc 2280
288 tttttccctt tgctaacc aaagcacaca gaagatctcc agtcaccca tagagactct 2340
290 ctctatacca gcatgccgac actggctggt gtggccgcca cagagagtgt taccaccagc 2400
292 acccagaccg aacccccacc ggccaaatgt ggtgatgcgg aagatgttta ctacaaaagc 2460
294 atgcaaaacc taggtccag aaaccacgtc catcagctgc atacttacta ccagctaggt 2520
296 cgcggcagca gtgatggatt tatagttcct ccaaacaaag atgggacccc tcccaggga 2580
298 agttcaaaag gaccggctca tttggtcact agtcta 2616

```

301 <210> SEQ ID NO: 3

302 <211> LENGTH: 1021

303 <212> TYPE: PRT

304 <213> ORGANISM: Homo sapiens

306 <400> SEQUENCE: 3

308 Glu Gly Ser Lys Gly Thr Lys Pro Pro Pro Ala Val Ser Thr Thr Lys

309 1 5 10 15

311 Ile Pro Pro Ile Thr Asn Ile Phe Pro Leu Pro Glu Arg Phe Cys Glu

312 20 25 30

RAW SEQUENCE LISTING

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:09

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw

```

314 Ala Leu Asp Ser Lys Gly Ile Lys Trp Pro Gln Thr Gln Arg Gly Met
315          35                      40                      45
317 Met Val Glu Arg Pro Cys Pro Lys Gly Thr Arg Gly Thr Ala Ser Tyr
318          50                      55                      60
320 Leu Cys Met Ile Ser Thr Gly Thr Trp Asn Pro Lys Gly Pro Asp Leu
321 65          70                      75                      80
323 Ser Asn Cys Thr Ser His Trp Val Asn Gln Leu Ala Gln Lys Ile Arg
324          85                      90                      95
326 Ser Gly Glu Asn Ala Ala Ser Leu Ala Asn Glu Leu Ala Lys His Thr
327          100                     105                     110
329 Lys Gly Pro Val Phe Ala Gly Asp Val Ser Ser Ser Val Arg Leu Met
330          115                     120                     125
332 Glu Gln Leu Val Asp Ile Leu Asp Ala Gln Leu Gln Glu Leu Lys Pro
333          130                     135                     140
335 Ser Glu Lys Asp Ser Ala Gly Arg Ser Tyr Asn Lys Leu Gln Lys Arg
336 145          150                     155                     160
338 Glu Lys Thr Cys Arg Ala Tyr Leu Lys Ala Ile Val Asp Thr Val Asp
339          165                     170                     175
341 Asn Leu Leu Arg Pro Glu Ala Leu Glu Ser Trp Lys His Met Asn Ser
342          180                     185                     190
344 Ser Glu Gln Ala His Thr Ala Thr Met Leu Leu Asp Thr Leu Glu Glu
345          195                     200                     205
347 Gly Ala Phe Val Leu Ala Asp Asn Leu Leu Glu Pro Thr Arg Val Ser
348          210                     215                     220
350 Met Pro Thr Glu Asn Ile Val Leu Glu Val Ala Val Leu Ser Thr Glu
351 225          230                     235                     240
353 Gly Gln Ile Gln Asp Phe Lys Phe Pro Leu Gly Ile Lys Gly Ala Gly
354          245                     250                     255
356 Ser Ser Ile Gln Leu Ser Ala Asn Thr Val Lys Gln Asn Ser Arg Asn
357          260                     265                     270
359 Gly Leu Ala Lys Leu Val Phe Ile Tyr Arg Ser Leu Gly Gln Phe
360          275                     280                     285
362 Leu Ser Thr Glu Asn Ala Thr Ile Lys Leu Gly Ala Asp Phe Ile Gly
363          290                     295                     300
365 Arg Asn Ser Thr Ile Ala Val Asn Ser His Val Ile Ser Val Ser Ile
366 305          310                     315                     320
368 Asn Lys Glu Ser Ser Arg Val Tyr Leu Thr Asp Pro Val Leu Phe Thr
369          325                     330                     335
371 Leu Pro His Ile Asp Pro Asp Asn Tyr Phe Asn Ala Asn Cys Ser Phe
372          340                     345                     350
374 Trp Asn Tyr Ser Glu Arg Thr Met Met Gly Tyr Trp Ser Thr Gln Gly
375          355                     360                     365
377 Cys Lys Leu Val Asp Thr Asn Lys Thr Arg Thr Thr Cys Ala Cys Ser
378          370                     375                     380
380 His Leu Thr Asn Phe Ala Ile Leu Met Ala His Arg Glu Ile Ala Tyr
381 385          390                     395                     400
383 Lys Asp Gly Val His Glu Leu Leu Leu Thr Val Ile Thr Trp Val Gly
384          405                     410                     415
386 Ile Val Ile Ser Leu Val Cys Leu Ala Ile Cys Ile Phe Thr Phe Cys

```

VERIFICATION SUMMARY

DATE: 12/21/2001

PATENT APPLICATION: US/09/744,226A

TIME: 13:10:10

Input Set : A:\2534seq.txt

Output Set: N:\CRF3\12212001\I744226A.raw